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# (12) UK Patent Application (19) GB (11) 2 336 570 (13) A

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(56) Documents Cited

GB 2332172 A

US 5089690 A

GB 2209998 A

US 4902231 A

GB 2152437 A

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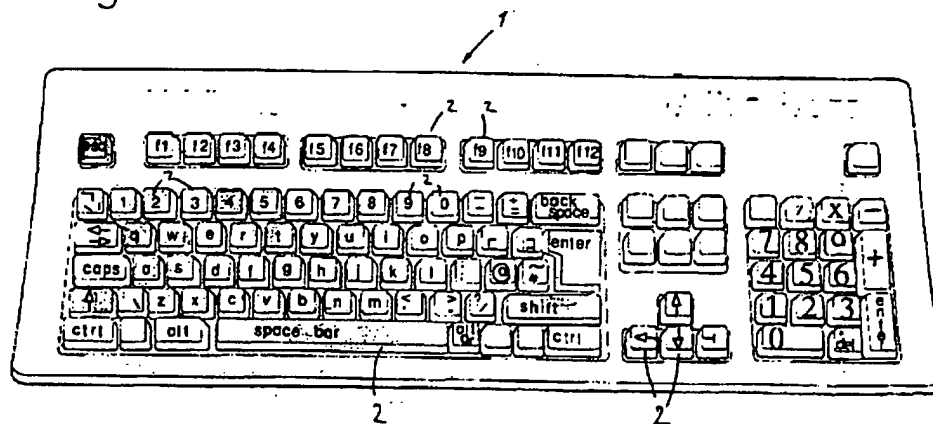
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(54) Abstract Title

**Keyboard overlay with finger touch zones marked with indicia different to the indicium on an underlying keyboard key or pad**

(57) An overlay 1 includes finger touch zones 2 marked with indicia different to the indicium symbol on the underlying keyboard key or pad. The indicium carried by the touch zones may be colour coded or comprise lower case lettering corresponding to the underlying upper case lettering of the keyboard. Each touch zone may be marked with two characters (Fig.2). The overlay may comprise a plurality of layers with the touch zones on each layer marked with indicia different to the indicium on the underlying keyboard. The overlay may include a displaceable cover portion which can be displaced from a cover position, in which access to certain keys is permitted, to a displaced position, in which access to the keys is permitted.

Fig 1



GB 2 336 570 A

Fig 1

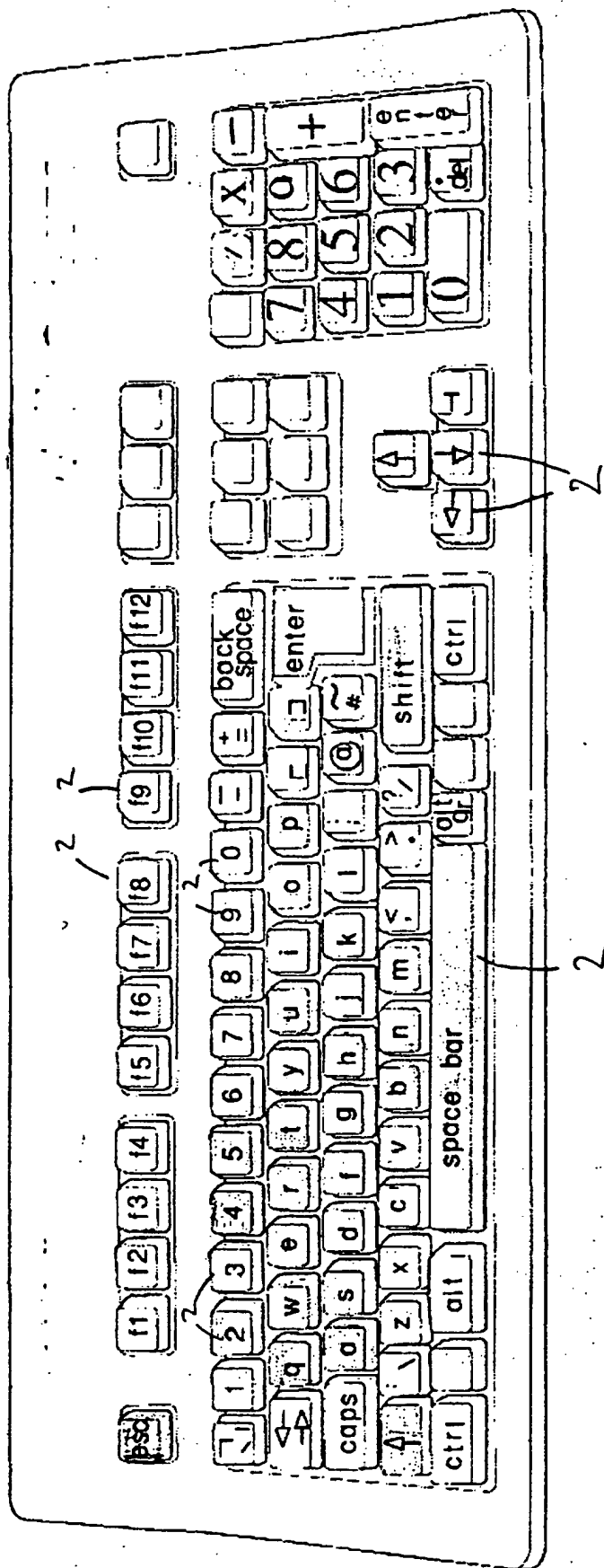
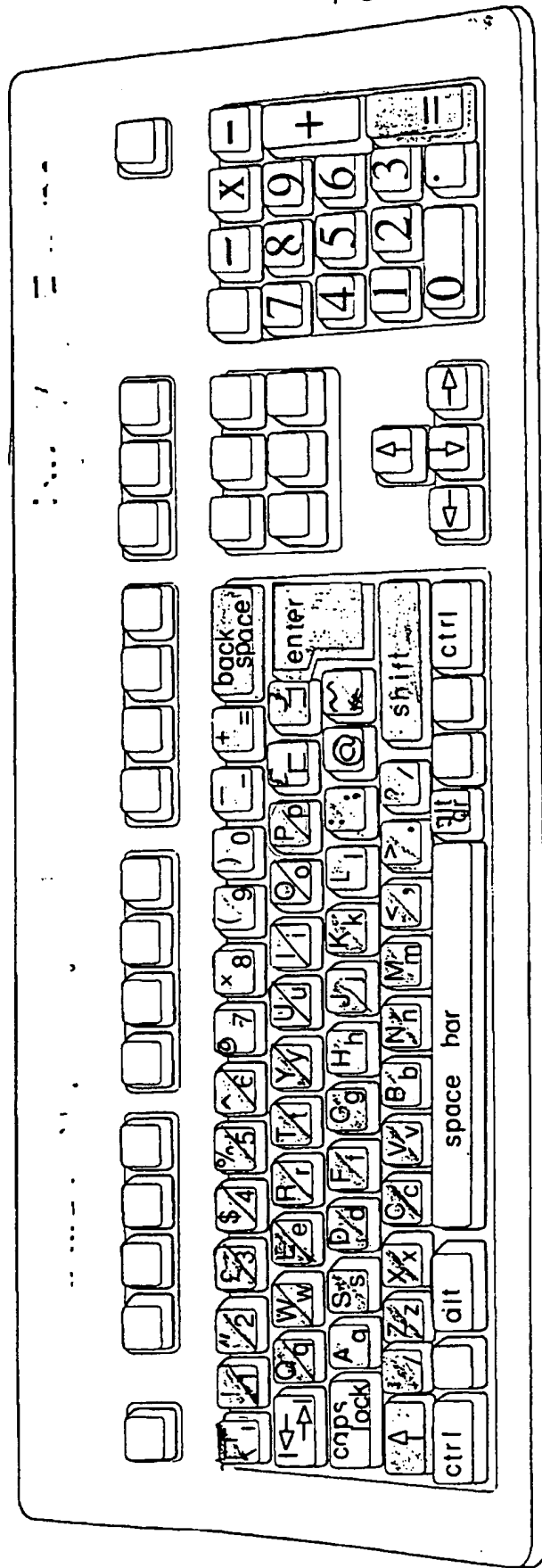


FIG 2



Keyboard Arrangement

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The present invention relates to a keyboard arrangement.

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According to the invention, there is provided arrangement comprising:

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i) a keyboard having a plurality of keys or pads provided with respective indicium symbols; and,

20

ii) an overlay for at least some of the keyboard keys or pads, the overlay including finger touch zones configured to overlay respective predetermined keyboard keys or pads, the finger touch zones being marked with indicia different to the indicium symbol on the underlaying keyboard key or pad.

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The keyboard is preferably electronic keyboard such as an alphanumeric keyboard (for example a computer or wordprocessor keyboard) and preferably at least some of the keys or pads are preferably marked with alphanumeric indicia.

30

The overlay preferably covers substantially the entire keyboard.

35

Desirably, the overlay comprises a sheet of flexible resilient material, preferably a sheet of plastics material such as, for example polyvinyl chloride.

The overlay may comprise a sheet of moulded material, particularly where the keyboard comprises depressible key elements. In this embodiment, the overlay may have shaped moulded finger touch zones arranged to encompass individual respective key elements.

The indicium carried by a respective finger touch zone may be an identifiable symbol (such as an alphanumeric character) or a colour indicium or a combination of both.

Typically electronic alphanumeric keyboards include depressible keys or finger touch actuatable pads. Typically the 'letter' keys or pads are provided with markings in upper case. When teaching young children to use such a keyboard it is believed that it would be useful to provide 'letter' markings in lower case. The invention provides that by providing a lower case letter indicium on the respective finger touch zone of the overlay corresponding to the underlying upper case letter symbol on the keyboard key or pad, a standard keyboard can be adapted to aid in teaching young children keyboard skills.

In one embodiment the overlay may include a plurality of commonly coded finger touch zones. Common coding of finger touch zones may be achieved, for example by having a predetermined selection of finger touch zones commonly coloured to identify a particular common characteristic. For example all letter keys may be coded in a first colour, all numeric keys in a second colour, 'arrow' keys in a third colour, and 'function' keys in a fourth colour. Groups of finger touch zones may therefore be commonly coded to correspond with groups of selected keys or pads on the underlying keyboard.

In certain instances a respective finger touch zone may be

marked with two or more indicia, one or both of which will be different to the indicium symbol on the underlying keyboard key or pad.

5       The respective finger touch zones are preferably substantially opaque, such that the symbol on a respective underlying keyboard key or pad is not visible when the overlay is in place in register with the keyboard.

10       Desirably, the overlay includes one or more substantially rigid zones arranged to overlay predetermined selected keyboard keys or pads. In this way certain keyboard keys or pads (such as command keys) can be inhibited from actuation.

15       In one embodiment, the overlay may comprise a plurality of layers, respective layers comprising a sheet of flexible resilient material and including finger touch zones configured to overlay respective predetermined keyboard  
20       keys or pads, the finger touch zones on each layer being marked with indicia different to the indicium symbol on the underlying keyboard key or pad. The finger touch zones of successive layers are advantageously marked with different respective indicia.

25       In one embodiment, the arrangement may comprise a displaceable cover portion (such as for example a hinged cover panel) carried by the overlay, and displaceable from a cover position (in which access to certain keyboard keys  
30       is inhibited) to a displaced position in which access to the relevant keys is permitted.

The invention will now be further described in a specific embodiment by way of example only, and with reference to  
35       the accompanying drawings, in which:

Figure 1, is a plan view of an exemplary keyboard arrangement according to the invention; and,

Figure 2, is a plan view of an alternative keyboard arrangement according to the invention.

5 Referring initially to figure 1, a conventional computer keyboard (not shown) is provided with an overlay cover 1 comprising a sheet of substantially flexible opaque  
10 plastics material moulded to conform to the shape of an upper surface of the keyboard. The surface of the cover overlay 1 is provided with demarked finger touch zones 2 carrying respective indicia in the form of lower case  
15 lettering thereon. The lowercase lettering corresponds to upper case lettering provided on the keyboard keys underlying the cover overlay 1. Therefore, when the cover 1 is placed on a conventional keyboard for a computer, the lowercase lettering is superimposed on the corresponding  
20 upper case lettering present on a keyboard. Furthermore, zones corresponding to the "space bar", "shift", "enter" and "back space" are provided labelled "space bar", "shift" "enter" and "back space".

25 The finger touch zones 2 are further marked with colour indicia in the form of being colour coded in respective groups such that preselected groups of keyboard keys underlying the cover overlay 1 correspond to respective  
30 colour coded groups of finger touch zones. For example, the row of numerical keyboard keys may be overlaid with red finger touch zones; the letter keys may be overlaid with blue zones and the arrow keys may be overlaid with green zones.

35 In the modification to the cover overlay 1 shown in figure 2, each finger touch zone of the cover overlay 1



5        overlaying the alpha numeric portion of the keyboard is  
marked with two characters (For example upper and lower  
case characters) and additionally is two-tone colour  
coded, such that the character produced by depressing the  
relevant key when the 'shift' key is also depressed is  
backed by a colour corresponding to the colour of the  
"shift" finger touch zone.

10       The invention enables a standard keyboard to be adapted to  
aid in teaching young children keyboard skills by making  
the correlation between groups of keys and function more  
clear, and also by presenting alphanumeric characters in  
a more recognisable form for young children (i.e. lower  
case).

15       It will be appreciated that other colour coding and  
indicia correlation arrangements can be utilised without  
departing from the essence of the invention.

Claims:

1. An arrangement comprising:
  - 5           i) a keyboard having a plurality of keys or pads provided with respective indicium symbols; and,
  - ii) an overlay for at least some of the keyboard keys or pads, the overlay including finger touch zones configured to overlay respective  
10           predetermined keyboard keys or pads, the finger touch zones being marked with indicia different to the indicium symbol on the underlaying keyboard key or pad.
- 15           2. An arrangement according to claim 1, wherein the overlay is shaped and dimensioned to cover substantially the entire keyboard.
- 20           3. An arrangement according to claim 1 or claim 2, wherein the overlay comprises flexible resilient material.
- 25           4. An arrangement according to any preceding claim, wherein the overlay comprises a sheet of moulded material.
- 30           5. An arrangement according to any preceding claim, wherein the overlay has shaped moulded finger touch zones arranged to encompass individual respective key elements of the keyboard.

6. An arrangement according to any preceding claim,  
wherein the indicium carried by a respective finger  
touch zone is an identifiable symbol (such as an  
alphanumeric character).

5

7. An arrangement according to any preceding claim,  
wherein the indicium carried by a respective finger  
touch zone is a colour indicium.

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8. An arrangement according to any preceding claim,  
wherein a lower case letter indicium is provided on  
the respective finger touch zone of the overlay  
corresponding to the underlying upper case letter  
symbol on the keyboard key or pad.

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9. An arrangement according to any preceding claim,  
wherein the overlay includes a plurality of commonly  
coded finger touch zones.

20

10. An arrangement according to claim 9, wherein a  
predetermined selection of finger touch zones are  
commonly coloured to identify a particular common  
characteristic.

25

11. An arrangement according to claim 9 or claim 10,  
wherein groups of finger touch zones are commonly  
coded to correspond with groups of selected keys or  
pads on the underlying keyboard.

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12. An arrangement according to any preceding claim,

wherein one or more finger touch zones are marked with two or more indicia, one or both of which indicia are different to the indicium symbol on the underlaying keyboard key or pad.

5

13. An arrangement according to any preceding claim, wherein finger touch zones are substantially opaque, such that the symbol on a respective underlying keyboard key or pad is not visible when the overlay is in place in register with the keyboard.

10

14. An arrangement according to any preceding claim, wherein the overlay includes one or more substantially rigid zones arranged to overlay predetermined selected keyboard keys or pads.

15

15. An arrangement according to any preceding claim, wherein the overlay comprises a plurality of layers, respective layers comprising a sheet of flexible resilient material and including finger touch zones configured to overlay respective predetermined keyboard keys or pads.

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16. An arrangement according to claim 15, wherein the finger touch zones on each layer are marked with indicia different to the indicium symbol on the underlaying keyboard key or pad.

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17. An arrangement according to claim 15 or claim 16, wherein the finger touch zones of successive layers are marked with different respective indicia.

30

18. An arrangement according to any preceding claim including a displacable cover portion carried by the overlay, and displacable from a cover position ,in  
5 which access to certain keyboard keys is inhibited, to a displaced position in which access to the relevant keys is permitted.
19. An arrangement substantially as herein described,  
10 with reference to the accompanying drawings.



- 10 -

Application No: GB 9903577.6  
Claims searched: 1-19

Examiner: Gary Williams  
Date of search: 25 August 1999

**Patents Act 1977**  
**Amended Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.Q): B6F: FMKK

Int Cl (Ed.6): B41J: 5/10; G06F: 3/023; G09B: 13/00

Other: Online: EPODOC

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X,E	GB 2332172 A (OSDIN) See Fig.1, page 5 lines 1-8	1-6,13
X	GB 2209998 A (MACDONALD) See Fig.1, abstract, page 2 line 13 - page 3 line 10	1,6-8
X	GB 2152437 A (POLATSCHEK) See Figs.1&2, page 1 lines 71-91	1-6,9,13 14
X	US 5089690 (HEWLETT-PACKARD) See Fig.1, col.2 lines 42-54	1-5 12,13
X	US 4902231 (FREER) See Figs.3-5, col.4 lines 9-13	1,5,7,9 10,11,13
X	US 4326193 (ALLEN BRADLEY) See Fig.3, col.1 lines 20-27, col.2 lines 7-10, col.4 lines 15-39	1-6, 15-17

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